

CLAIMS

1. A nematicidal protein which comprises the sequence shown in SEQ ID NO: 1.
- 5 2. A nematicidal protein having at least 70% identity to a protein as claimed in claim 1.
3. A nematicidal protein which comprises the protein of claim 1 or claim 2 wherein the N-terminal methionine residue has been cleaved.
- 10 4. A polynucleotide which encodes a protein as claimed in claim 1 or claim 2.
5. The polynucleotide as claimed in claim 4 which comprises sequence shown in SEQ ID NO: 2.
- 15 6. A polynucleotide which is the complement of one which hybridises to a sequence as defined in claim 5 under stringent conditions and wherein said polynucleotide encodes a protein which is nematicidal.
7. A construct comprising the polynucleotide of any one of claims 4 to 6.
- 20 8. A construct as claimed in claim 7 wherein the polynucleotide is operably linked to a transcription initiation region and a transcriptional termination region.
9. A construct as claimed in claim 8 which further comprises a selectable marker.
- 25 10. A host cell comprising a polynucleotide as claimed in any one of claims 4 to 6, or a construct as claimed in any one of claim 7 to 9.
11. A transgenic plant comprising a polynucleotide as claimed in any one of claims 4 to 6 or a construct as claimed in any one of claims 7 to 9.
- 30 12. A method of providing a plant or a plant part with a nematicidal protein comprising:

- a) inserting into the genome of the plant or of plant material a polynucleotide as claimed in any one of claims 4 to 6, or a construct as claimed in any one of claims 7 to 9;
- 5 b) regenerating plants or plant parts therefrom; and
- c) selecting those plants or plant parts having said protein.

13. Plants or plant parts obtained according to the method of claim 12.

14. Plants or plant parts as claimed in claim 13 which comprise a further agronomic trait selected from the group consisting of:

- a) herbicide resistance;
- b) insect resistance;
- c) fungus resistance;
- d) nematode resistance;
- 15 e) altered stress tolerance;
- f) altered yield; and
- g) altered nutritional content.

15. The use of a polynucleotide as claimed in any one of claims 4 to 6 or a construct as claimed in any one of claims 7 to 9 in a method of producing plants which are resistant and/or tolerant to nematodes.

20 16. The use of a protein as claimed in any one of claims 1 to 3 as an active ingredient in the production of a nematicide.

25 17. A method of controlling nematodes comprising providing at a locus where said nematodes feed a protein according to any one of claims 1 to 3.

30 18. A composition comprising a nematicidally effective amount of at least one protein as claimed in any one of claims 1 to 3 and an agriculturally acceptable carrier and/or a diluent and/or a nematode attractant.